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file IA strategy

STATE OF COLORADO

Bill Owens, Governor
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Dedicated to protecting and improving the health and environment of the people of Colorado

HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
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Colorado Department
of Public Health
and Environment

RECEIVED
David C. Shelton

September 13, 1999

SEP 20 1999

Mr. Joe Legare
RFCA Project Coordinator
US Department of Energy
10808 Highway 93, Unit A
Golden, CO 80403-8200

Action to: _____ Info Only _____
Due Date _____ Copy to: _____

Industrial Area Characterization and Remediation Strategy August 1999

Dear Joe:

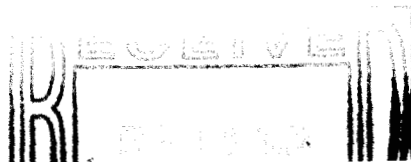
The Colorado Department of Public Health and Environment has reviewed the above document and finds it to be well written and organized. Our responses to this document are captured in general comments noted below and specific comments in the attachment to this letter. We are encouraged that RFETS is attempting to develop strategies for implementing closure of Rocky Flats by FFY06, and have directed our comments to successful implementation of closure.

Our general comments fall under four topics: the data quality objectives process, the groundwater remediation strategy, use of action levels, and basis of evaluation for remediation. Concerns related to each of these topics are presented below and in the specific comments attached.

Data Quality Objectives Process. This draft of the strategy reflects a greater integration of the IA Strategy with the ongoing data quality objectives (DQO) process used to determine the monitoring necessary at the site. However, we are concerned that the strategy reflects the implementation of a DQO process as an additional step to be performed rather than an integral component of the strategy. As we envision this process, and believe it to be used currently, the DQO process is the vehicle for identifying and prioritizing drivers for characterization, remediation and post-remediation activities. Linkage of the drivers to characterization defines the data required for remediation decision-making, which is also the basis for determining post-remediation monitoring and controls. We suggest that rather than changing specific parts of the document, CDPHE staff will emphasize this issue in the early stages of DQO implementation this fall.

Groundwater Remediation Strategy. Section 6.4 discusses the plume remediation strategy and

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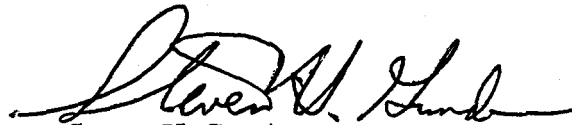
reflects an advanced state of decision making regarding groundwater remediation. The decisions reflected in this section need to be compiled into a coherent strategy for groundwater that can be reviewed and approved by the regulators and possibly the public. The approach reflects an understanding of the site hydrogeology that may not be substantiated until the water balance study is completed, and appears to determine specific remediation alternatives prior to identification of problems, and development and evaluation of alternatives. This information would be an appropriate appendix to the IA Strategy.

Use of Action Levels. There is some confusion in the document about the use of Tier I and II action levels. Specific comments attached suggest the correct use of these levels; however, an additional set of action levels will be defined from those levels needed to protect surface water. We suggest that the document reflect that several action levels could be determined to apply to a given contamination problem, and that in different cases, different action levels would be the controlling driver. The DQO process will provide structure for this relationship.

Basis of Evaluation for Remediation. The document concludes that the basis for evaluation of remediation alternatives will be the IHSS Groupings. While this is expected to be the case for source-driven action levels, surface water protection action levels may need to be evaluated on a watershed basis. Until the surface water action levels are defined, it would be prudent to provide some flexibility in alternative development and evaluation, specifically in areas where surface soil contamination may be a contributor to surface water.

As noted, specific comments are attached. If you have any questions, please contact me at 303-692-3367, Steve Tarlton at 303-692-3423, or Carl Spreng at 303-692-3358.

Sincerely,



Steven H. Gunderson
RFCA Project Coordinator

attachment

cc: Dave Shelton, KH
Lane Butler, K-H
Tim Rehder, EPA
Dan Miller, AGO

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**Colorado Department of Public Health and Environment
Hazardous Materials and Waste Management Division**

comments on

Draft Final Industrial Area Characterization and Remediation Strategy

1. Table 1 (page 10)
This table identifies “Characterize IA Groups” as a framework element. As stated in Section 6.2, another characterization requirement is to provide data for the CRA, which may become the driver for much of any additional sampling.
2. Table 1 (pages 9-12)
The responsibilities for the following framework elements should be modified since all three documents require agency approval:
 - Develop IA DQOs and SAP | DOE with Regulatory Agency Approval
 - Develop Closeout Report | DOE with Regulatory Agency Approval
and Stakeholder Review
 - Develop CAD/ROD | DOE with Regulatory Agency Approval
and Stakeholder Review
3. Table 1 (page 10)
The framework element, “Are PCOCs > RFCA Tier I values?”, should be revised to state, “Compare PCOCs to RFCA action levels.” The second column could state, “Exposure areas with PCOCs > Tier I values will trigger an action decision. Exposure areas with PCOCs < Tier II values will trigger the NFA process. Exposure areas with PCOCs < Tier I and > Tier II values will be evaluated for potential action decisions.” NFA justification for exposure areas below Tier II levels is mentioned in Section 6.3.1, but is ignored in this table. This table implies that no actions are required for areas below Tier I levels when in fact, RFCA specifies requirements for Tier II exceedences.
4. Figure 5 (page 8)
The concepts mentioned in Comment #2 also need to be captured in the flow diagram in Figure 5. This diagram should also include a box labeled, “Post-Closure Activities” below or in place of the “IA Closure Complete” box. This could also be added as a final framework in Table 1.
5. Table 1 (page 11)
The final framework element, “Develop CAD/ROD”, should state that, “The CAD/ROD will describe closure and post-closure activities of the IA and the Site...”

6. Section 3.1 (page 14)
The No-Further-Action justification process should be identified as a “requirement of the RFCA process.”
7. Section 3.2 (page 14)
The statement referring to the 78 acres identified on Figure 6 as industrial use is accurate, but is inconsistent with the recent decision by the RFCA Project Coordinators. That decision should be documented and referenced here.
8. Section 6.3 (page 39)
Three remediation selection criteria are stated here. It would be more appropriate to include CERCLA’s 9 Evaluation Criteria for Analysis of Remedial Alternatives.
9. Section 6.3.3 (page 40)
The last paragraph in this section should state that the decision to cap or cover parts of the IA will include consideration of the need for perpetual maintenance.
10. Section 6.2.4 (page 40)
The final sentence in the third paragraph in this section presupposes the remedy for the IA plume complex. As stated in the previous sentence, the data to support a remedy selection are not yet available (or at least has not been presented to the regulatory agencies). It is also preliminary to assume that a single reactive barrier will suffice to remediate a complex plume that appears to be heading in several different directions.
11. Section 6.4 (page 46)
This section mentions employing “innovative sampling and remediation technologies” to address the underground pipeline systems. Removing most or all of this piping seems to be a much more efficient and cost-effective plan. Once the pipes are removed, efforts can focus on characterizing the fill material in the utility corridors and assessing this material’s potential to serve as future pathways for contaminated groundwater. This strategy is also consistent with the concept of leaving the Site available for the most future uses possible.
12. Section 6.4.2 (page 52)
Modify the sixth bullet to state, “Basements or foundations below the water table or top of bedrock,”
13. Section 6.5.4 (page 54)
This section should include the idea that an accurate and complete data base must be maintained beyond the CAD/ROD for post-closure activities.